

IN THE CLAIMS:

Please cancel Claims 4, 7 and 8 without prejudice or disclaimer of the subject matter recited therein.

Please amend Claims 1, 3, 5, 6, 10-17 as follows.

1. (Currently Amended) An image processing apparatus, comprising:
an image input means unit for inputting an image signal ~~relating to a television broadcast~~;
a menu generation means unit for generating a menu image signal representing an operation menu relating to processing of the image signal and having a plurality of menu portions at different hierarchical levels each including at least one menu item, and generating a registration menu image signal representing a registration menu having a plurality of items corresponding to a plurality of function keys of an operating device;
a display control means unit for displaying on a same display screen of a display unit device an image corresponding to the image signal output from said image input means unit and the operation menu corresponding to the menu image signal generated by said menu generation means unit, wherein the menu portions at each hierarchical level are displayed stepwise according to a selecting operation by the operating device for the menu items;
an instruction input means unit for receiving an instruction from ~~an~~ the operating device unit including a plurality of function keys and a selection means unit for selecting a desired item in the operation menu displayed on said display unit screen; and

an assignment means unit for assigning, according to a predetermined operation by the operating ~~unit~~ device, a function according to one set of items ~~item~~ selected by said selection unit ~~means from the items at a lowest~~ each hierarchical level in the operation menu ~~displayed on said display unit~~ to one of said plurality of function keys with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and said plurality of function keys, ~~and~~

~~control means for controlling, in response to said operation of said function key, said image input means to execute processing corresponding to the function assigned to said function key by said assignment means.~~

Claim 2. (Cancelled).

3. (Currently Amended) An apparatus according to claim 1, wherein said menu generation ~~means~~ unit generates said registration menu image signal so that said registration menu is displayed adjacent to said operation menu.

Claim 4. (Cancelled).

5. (Currently Amended) An apparatus according to claim 1, wherein said assignment ~~means~~ unit performs said assignment operation according to the key operation

performed by said operating unit to determine one of the items in said registration menu as desired.

6. (Currently Amended) An apparatus according to claim 1, wherein said assignment ~~means~~ unit performs said assignment operation in response to the absence of any operation by said operating unit during a predetermined time period.

Claims 7 and 8. (Cancelled).

9. (Original) An apparatus according to claim 1, wherein said operating unit comprises a remote control device.

10. (Currently Amended) An apparatus according to claim 1, wherein said menu generation ~~means~~ unit includes a storage unit for storing image data representing said operation menu.

11. (Currently Amended) An apparatus according to claim 1, wherein said menu generation ~~means~~ unit includes a storage unit for storing character code data and font data representing said operation menu.

12. (Currently Amended) An apparatus according to claim 1, wherein said assignment ~~means~~ unit includes a memory for storing code data representing functions assigned to said plurality of function keys.

13. (Currently Amended) An apparatus according to claim 1, wherein said display control ~~means~~ unit synthesizes a combined image signal by combining the image signal output from said image input ~~means~~ unit and the menu image signal generated by said menu generation ~~means~~ unit, and displays an image corresponding to said combined image signal on the display unit.

14. (Currently Amended) A signal processing apparatus, comprising:
a signal input ~~means~~ unit for inputting an image signal and an audio signal ~~relating to a television broadcast~~;
a menu generation ~~means~~ unit for generating a menu image signal representing an operation menu relating to processing of the audio signal and having a plurality of menu portions at different hierarchal levels each including at least one menu item, and generating a registration menu image signal representing a registration menu having a plurality of items corresponding to a plurality of function keys of an operating device;
an audio output ~~means~~ unit for outputting, to an audio monitor, sound relating to the audio signal output from said signal input ~~means~~ unit;

a display control means unit for displaying, on a same display screen of a display unit device, an image corresponding to the image signal output from said signal input means unit, and the operation menu corresponding to the menu image signal generated by said menu generation means unit, wherein the menu portions at each hierarchical level are displayed stepwise according to a selecting operation by the operating device for the menu items;

an instruction means unit for receiving an instruction from an the operating device unit including a plurality of function keys and a selection means unit for selecting a desired item in the operation menu displayed on said display unit screen; and

an assignment means unit for assigning, according to a predetermined operation by said operating unit device, a function corresponding to one set of items item selected by said selection means from the items unit at a lowest each hierarchical level in the operation menu displayed on said display unit to one of said plurality of function keys with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and said plurality of function keys; and

control means for controlling, in response to the operation of said function key, said audio input means to execute processing corresponding to the function assigned to said function key by said assignment means.

15. (Currently Amended) A television receiver, comprising:

a receiving means unit for receiving a television broadcast;

an image processing ~~means~~ unit for processing an image signal relating to the television broadcast received by said receiving ~~means~~ unit;

an audio processing means for processing an audio signal relating to the television broadcast received by said receiving ~~means~~ unit;

a display unit;

a speaker for outputting sound corresponding to the audio signal processed by said audio processing;

a menu generation ~~means~~ unit for generating a menu image signal representing an operation menu having a plurality of menu portions at different hierarchical levels and relating to processing of the image signal and the audio signal, and generating a registration menu image signal representing a registration menu having a plurality of items corresponding to a plurality of function keys of a remote controller;

a display control ~~means~~ unit for synthesizing a combined image signal by combining the image signal output from said image processing ~~means~~ unit and the menu image signal generated by said menu generation ~~means~~ unit, and for displaying on a same display screen of the display unit an image corresponding to the combined image signal ~~on said display unit~~, wherein the menu portions at each hierarchical level are displayed stepwise according to a selecting operation by said remote controller for the menu items;

an instruction ~~means~~ unit for receiving an instruction from a remote controller having function keys and a selection ~~means~~ unit for selected a desired item in the operation menu displayed on said display unit; and

an assignment means unit for assigning, according to a predetermined operation by said remote controller, a function according to one set of items item selected by said selection unit means from items at a lowest each hierarchical level in the operation menu ~~displayed on said display unit~~ to one of said plurality of function keys with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and said plurality of function keys, ~~and~~

~~control means for controlling, in response to the operation of said function key, said image processing means and said audio processing means to execute processing according to said function assigned to the function key by said assignment means.~~

16. (Currently Amended) An image processing method, comprising the steps of:

inputting an image signal ~~relating to a television broadcast;~~

generating a menu image signal representing an operation menu relating to processing of the image signal and having a plurality of menu portions at different hierarchical levels each including at least one menu item, and generating a registration menu image signal representing a registration menu having a plurality of items corresponding to a plurality of function keys of an operating device;

displaying on a same display screen of a display unit device, an image corresponding to the image signal obtained in said signal input step and the operation menu corresponding to the menu image signal generated in said menu generation step, wherein the

menu portions at each hierarchical level are displayed stepwise according to a selecting operation by the operating device for the menu item;

receiving an instruction from ~~an~~ the operating ~~unit including a plurality of function keys~~ device and ~~a selection means~~ unit for selecting a desired item in the operation menu displayed on the display ~~unit~~ screen; and

assigning, according to a predetermined operation by the operating ~~unit~~ device, a function corresponding to one set of items ~~item~~ selected by said selection ~~means from the items~~ unit at a ~~lowest~~ each hierarchical level in the operation menu ~~displayed on said display unit~~ to one of the plurality of function keys with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and the plurality of function keys, ~~and~~

~~controlling, in response to said operation of the function key, said signal input step to execute processing according to the function assigned to said function key in said assignment step.~~

17. (Currently Amended) A signal processing method, comprising the steps of:

inputting an image signal and an audio signal ~~relating to a television broadcast~~;

generating a menu image signal representing an operation menu relating to processing of the audio signal and having a plurality of menu portions at different hierarchical levels each including at least one menu item, and generating a registration menu image signal

representing a registration menu having a plurality of items corresponding to a plurality of function keys of an operating device;

outputting, to an audio monitor, sound corresponding to the audio signal obtained in said signal input step;

displaying on a same display screen of a display unit device, an image corresponding to the image signal obtained in said signal input step and the operation menu corresponding to the menu image signal generated in said menu generation step, wherein the menu portions at each hierarchical level are displayed stepwise according to a selecting operation by the operating device for the menu items;

receiving an instruction from ~~an~~ the operating device unit ~~including a plurality of function keys and a selection means~~ unit for selecting a desired item in the operation menu displayed on the display ~~unit~~ screen; and

assigning, according to a predetermined operation by ~~said~~ the operating unit device, a function according to one set of items ~~item~~ selected by ~~said~~ the selection unit ~~means from the items at a lowest~~ each hierarchical level in operation menu ~~displayed on said display unit~~ to one of said plurality of function keys with one-to-one correspondence between a plurality of functions according to a plurality of sets of items and said plurality of function keys; and

~~controlling, in response to the operation of the function key, said audio input step to execute processing corresponding to the function assigned to said function key in said assignment step.~~